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Health professional mobility in the European Union: Exploring the equity and efficiency of free movement☆

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ABSTRACT

The WHO Global Code of Practice on the International Recruitment of Health Personnel is a landmark in the health workforce migration debate. Yet its principles apply only partly within the European Union (EU) where freedom of movement prevails. The purpose of this article is to explore whether free mobility of health professionals contributes to "equitably strengthen health systems" in the EU. The article proposes an analytical tool (matrix), which looks at the effects of health professional mobility in terms of efficiency and equity implications at three levels: for the EU, for destination countries and for source countries. The findings show that destinations as well as sources experience positive and negative effects, and that the effects of mobility are complex because they change, overlap and are hard to pin down. The analysis suggests that there is a risk that free health workforce mobility disproportionally benefits wealthier Member States at the expense of less advantaged EU Member States, and that mobility may feed disparities as flows redistribute resources from poorer to wealthier EU countries. The article argues that the principles put forward by the WHO Code appear to be as relevant within the EU as they are globally.

1. Introduction

The WHO Global Code of Practice on the International Recruitment of Health Personnel adopted in 2010 was a landmark in the debate on health workforce migration [1]. For the first time, countries collectively recognised the ethical concerns which health workforce migration can give rise to and agreed to avoid recruitment from health systems suffering from a shortage of health professionals. The Code is a voluntary instrument; without in any way banning migration or international recruitment, it seeks to promote principles and practices that "mitigate the negative effects and 'maximize' the positive effects of migration" (Art 3.4, p. 2) especially for developing countries, countries with economies in transition and small island states. Among its guiding principles figures that "international migration of health personnel can make a sound contribution to the development and strengthening of health systems" (Art 3.2, p. 2).

The Code presents the European Union with a paradox. The EU and its members are clearly committed to the Code's principles outside the EU. All EU Member States have signed the Code and EU institutions repeatedly express how each Member State should fulfil its health workforce needs and that the Union has a responsibility to meet its objective of providing high quality health care without harming health systems in developing countries [2–4]. Countries such as England, Scotland, Ireland, the Netherlands and Norway have developed national guidance and codes of practice on ethical recruitment from developing countries [5]. Inside the EU however, a different

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logic prevails. The movement of EU health professionals is not migration but *mobility*: whereas citizens from third countries are subject to national immigration laws and labour market policies when seeking to enter a country, an extensive body of EU legislation protects and guarantees the freedom of movement of EU citizens. By virtue of Directive 2005/36/EC, doctors, nurses, midwifes, dentists and pharmacists trained in the EU and holding EU nationality are free to seek employment, work and settle down in any Member State [6]. Free mobility is legally binding and may not be hindered by governments or other actors. Legally speaking, mobility takes precedence over the Code within the EU.

While the Code focuses on developing countries, its guiding principles that migration should contribute to equitably strengthen health systems (Art 3.2) are arguably of key relevance to the EU. Flows of EU health professionals between Member States (EU flows) are increasing in magnitude and relative importance, replacing and overtaking flows of third-country health professionals (non-EU flows) in many Member States. In a large destination country such as the UK, annual registration of non-EU nurses far exceeded that of EU nurses in the 1990s and early 2000s but the trend has reversed since 2008/09 [7]. In Germany, the number of EU-national doctors grew eightfold in 1991–2014, faster than foreign stocks from any other region [8]. In France, newly registered Romanian and Belgian doctors are replacing inflows from Northern Africa [9]. As EU flows grow, the question of their impact on EU health systems gains importance. Second, there are signs that disparities between Member States are growing. The economic crisis has affected countries differently, with repercussions on health systems and their ability to train, retain and attract health workforce [10,11]. The concern that potentially inadequate workforce numbers and skills represents a risk for health systems "with the impact being felt hardest in the poorest Member States" was already expressed by Commission on the eve of the 2004 Enlargement [12, p. 10]. As intra-EU disparities widen, the question becomes how free mobility impacts on the already fragile health systems of certain Member States.

The purpose of this article is to explore whether mobility contributes to "equitably strengthen health systems" in the EU [1, p. 2]. To answer this question, the article proposes an analytical tool structured as a matrix, which looks at the effects of health professional mobility in terms of efficiency and equity implications at three levels: for the EU, for destination countries and for source countries. In doing so, the framework (matrix) seeks to capture the changing, contrasting, overlapping effects of health professional mobility, and to contribute to the debate on the relevance of the principles put forward by the WHO Code.

2. Materials and methods

The article and proposed framework take stock of empirical evidence and policy analysis on health professional mobility in Europe. Qualitative data on the impact of mobility in 17 countries (Austria, Belgium, Estonia, Finland, France, Germany, Hungary, Italy, Lithuania, Poland, Romania, Serbia, Slovak Republic, Slovenia, Spain, Turkey and the United Kingdom) were collected in 2009–2010 [13]. The analysis draws on a forthcoming policy brief [14]; reviews of the impact of the economic crisis and of EU enlargements on health professional mobility carried out in 2012–2013 [10,15]; OECD data on recent trends in international migration of doctors and nurses [16]; and work done by Thomson and colleagues on the impact of the economic crisis on health systems [11]. To complement and update the material, evidence on the impact of health professional mobility in the EU was reviewed in 2014–2015.

3. Results

To explore whether mobility contributes to "equitably strengthen health systems" in the EU, the analytical framework examines the effects of health professional mobility along two dimensions: (i) where the impact occurs, that is, at EU level, in destination countries, or in source countries, and (ii) whether the impact is an improvement/reduction in efficiency or equity.

The framework builds on earlier work looking at the impact health workforce migration may have for destination and source countries [17,18], and at how mobility interacts with equity and efficiency [19,20]. The choice of including the EU as a distinct entity alongside destination and source countries serves to draw attention to the impact of mobility for the European community and for the goals it sets itself. The analysis seeks to cover the impact of all forms of mobility whether e.g. health professionals go abroad temporarily or for the long-term, return to the home country, end up working in another profession or below their skill level, become unemployed, commute between countries or take up 'dual employment' in two countries [21]. The juxtaposition of equity and efficiency is important because they embody two fundamental goals. The WHO Code strives for more equity by mitigating the negative effects of migration for developing countries as does the EU by reducing disparities between its Member States [16] and countries within their health systems by improving equity in access to services and fair treatment of health professionals. Efficiency is also omnipresent: the Code calls for effective health workforce development (Art 5), the EU emphasises "efficient and sustainable health systems" [22, p. 7], and countries seek health system performance e.g. through greater health workforce productivity [23].

In what follows, the efficiency and equity implications of free mobility are examined from the perspective of the EU, that of destination countries and of source countries. Table 1 gives a visual representation of the matrix. The

Table 1
The effect of free mobility on efficiency and equity in the EU, destination countries and source countries.

Implications/level	EU	Destination	Source
Merits			
Efficiency	A	B	C
Equity	D	E	F
Drawbacks			
Inefficiency	G	H	I
Inequity	J	K	L

Source: Glinos et al. [14].

implications are regrouped into *merits* (A–F), that is, when health professional mobility contributes to efficiency or equity in the EU, a country or a health system, and *drawbacks* (G–L), that is, when mobility creates or aggravates inefficiency or inequity at EU, country or system level. Each of the twelve possible combinations is described below with concrete examples. One exception is equity improvements (D–F), which are looked at together due to scarce information.

3.1. Merits of free mobility

3.1.1. A: Efficiency – EU

From an EU labour market perspective, free mobility can be a way to balance supply and demand for health workforce. Unemployment and underemployment have e.g. led health professionals from Italy, Spain, Greece, Portugal and Romania to seek work elsewhere in the EU [24–29]. According to the European Federation of Nurses Associations [30], rising unemployment among nurses is a concern in the majority of 34 surveyed countries. Instead of letting skills and competences go unused, it is more efficient from an EU perspective–and arguably more rewarding for the individuals – if the skills of mobile health professionals are used to full potential in destination countries.

3.1.2. B: Efficiency – destination

For destination countries, free mobility can contribute to health system performance when foreign-trained health professionals fill services gaps and workforce shortages. In Switzerland, one in three nurses and one in four doctors are foreign-trained, mainly from neighbouring countries; in Spain and Germany, foreign doctors alleviate regional shortages as they settle down in regions considered less attractive by nationals; in France, 40% of newly registered anaesthetists and 20% of newly registered paediatricians were EU-nationals, mainly from Romania, in 2007 [9,16,25,31].

But benefits go beyond service delivery. In the UK, a government review into the balance of competences between the UK and the EU concludes that the EU Single Market adds value in the health sector. According to the Royal College of Nursing: "Nursing in the UK has benefited enormously from the UK's membership of the EU, from free movement of professionals and from agreed minimum employment and working conditions in Europe" [32, p. 77].

Foreign health professionals can also add to the cultural diversity of workforce, as well as bring down the average age, and extra supply helps keep salary levels in check [13,25]. Other advantages concern training capacity. On one hand, foreign inflows can help to expand domestic training when senior staff sees their workloads reduced thanks to extra workforce, and can spend time on teaching [33], but generally inflows represent vast savings in terms of money, time and organisational capacity as the country does not educate and train all its health professionals domestically.

3.1.3. C: Efficiency – source

One efficiency advantage for the source country is when mobile health professionals send or bring remittances back home as do e.g. nurses from eastern European countries working in Germany [34], or dentists and GPs from Eastern European countries who supplement incomes by working short shifts (e.g. to provide out-of-hours services during weekends) in Ireland, the UK or Finland while keeping their jobs in the home country [33,35,40]. Returning health professionals may increase expertise in the home system when they improve their skills and qualifications abroad [26], e.g. in the case of exchange programmes [13].

Mobility can also provide a policy stimulus to tackle workforce issues. In 2010, some 3800 publicly employed Czech doctors joined the protest movement "Thank you, we're leaving", threatening to collectively resign and subsequently obtaining salary increases and improvements to the educational system [36]. Also in Lithuania, Hungary and Slovakia have protests and/or negotiations been associated with emigration intentions and concessions by governments.

3.1.4. D, E, F: Equity

There is little evidence on how free mobility may improve equity. Taken in the broadest sense, free mobility contributes to 'equity of opportunities' by opening up possibilities for all EU citizens across Member States. Working in an attractive, rewarding health system is not only an option for the nationals of that country but for all health professionals: Finnish doctors seek career advancement abroad, Belgian nurses are attracted by flatter work hierarchies in the Netherlands, Slovak doctors can access to better equipment abroad, while Austrian and Romanian (junior) doctors specialise in Germany and Belgium, respectively [13].

In destination countries, mobility may improve equity of access for patients when foreign health professionals alleviate health workforce shortages as e.g. noted in Spain and in the UK [25,33].

3.2. Drawbacks of free mobility

3.2.1. G: Inefficiency – EU

Free mobility may be lead to inefficiencies because it 'randomly' (re)distributes health professionals and funding within the EU, with no regards for domestic planning efforts and no guarantees that market mechanisms will reach a better or more efficient distribution of resources. In 2004, most 'old' Member States as well as Iceland, Malta, Norway, Lichtenstein and Switzerland sought to protect their labour markets from expected inflows by restricting the movement of health professionals from acceding Member States [15].

Given the large share of government funding going into educating health professionals in most countries, mobility also redistributes millions of Euros of tax-payers' money between EU countries. The lack of transparency on the exact extent and direction of in- and outflows, and absence of compensation mechanisms to offset countries' gains and losses arguably aggravate inefficiencies in how mobility distributes health workforce and funding.

Finally, free mobility can lead to inefficiency when the skills of mobile health professionals are not used to full potential in the destination country. The Estonian nurse

who divides her time between Estonia, where she works in emergency care, and Norway, where she works in a nursing home, is but one example of how mobility can be wasteful for countries and health professionals when (specialised) skills go unused [37]. In Switzerland, some 4000 foreign-trained doctors work as hospital assistants [16]. Similar examples abound across Europe [9] often related to health professionals working as personal carers [24,31,38]. In Finland, one in four foreign doctors and one in three foreign nurses are unemployed or not working in the health sector [35].

3.2.2. H: Inefficiency – destination

For destination countries, one form of inefficiency is that foreign inflows are an unstable source of workforce replenishment. Foreign-national doctors in Germany are four times more likely than German-national doctors to move [31]. Ireland and the UK are known to be 'stepping stones' for onward mobility, while reports show Finnish, Romanian and Spanish migrant doctors reversing mobility by returning home [25,35,39]. Competition between destinations contributes to the volatility of flows as free mobility makes it easier for health professionals to go where they perceive opportunities to be best. Employers in Poland headhunt Polish doctors abroad to return and a recruitment campaign by the Irish Health Service targeting UK-based Irish nurses involves setting up recruitment centres in British cities with high densities of Irish nurses [40,41]. EU flows are also less manageable than non-EU flows. Destination countries have no mechanisms for allocating EU health professionals to specific areas or limiting their stay. In Germany e.g. immigration procedures give non-EU doctors access to the German labour market if they take up work in underserved regions [30] while migration schemes can define the duration of non-EU health professionals' stay [7,42].

Another aspect to consider is the importance of integrating foreign health professionals into the new system and the time, capacity and money it takes to organise induction courses, language training etc. Receiving inflows can be both demanding and costly [34,43,44]. Without appropriate structures in place, foreign-trained health professionals who face de-skilling and inadequate working conditions in the host system might choose to re-emigrate causing what Humphries and colleagues have identified as a 'cycle of brain gain, waste and drain' [45].

Finally, mobility may prevent necessary policy action to address underlying workforce issues. In Ireland e.g. inflows of foreign-trained doctors replace the outflows of Irish-trained doctors but distract decision-makers from tackling retention problems [45]. Experts agree that "a shortage may not indicate a shortage of suitably skilled and qualified people, but rather the unwillingness of those skilled individuals to work under the available conditions" [45, p. 2, 46].

3.2.3. I: Inefficiency – source

In source countries, inefficiencies can arise when health professionals leave underserved regions [16,47] or when shortages make medical specialties particularly vulnerable to outflows as for example in Belgium, Estonia, Lithuania, Hungary, Poland and Slovakia [48]. 18% of Polish doctors specialised in anaesthetics and certain categories of surgery applied for certificates to leave the country between 2004 and 2014, compared to an average of 7% among all doctors [16]. In these cases it is highly probable that patient care is affected.

Mobility also impacts on remaining (non-mobile) staff who face greater burdens and lower work satisfaction e.g. when posts are left vacant or closed down due to recruitment stops, with adverse consequences for quality of care [17,47,49,50]. The loss of workforce can be all the more problematic for the organisation of patient care as outflows occur suddenly and are rarely planned for.

But losses go beyond service delivery. Outflows undermine returns on investments. When young health professionals leave – as is predominantly the case in e.g. Estonia, Hungary, Italy, Poland, Slovakia, Portugal and Romania [13,29] – they have had little time to 'give back' to the system and might be more likely to stay in the new system as they seem to adapt more easily to living and working abroad [39,43]. While migrants often intend on returning home at the moment of leaving, return to the home country is less likely once professional and personal ties are established in the destination.

When health professionals leave, source systems also lose those with the capacity to shape today's and tomorrow's workforce. Whether it is experienced health professionals working as team leaders and educators or those with the drive to improve and reform the system who leave, the departure of talent and potential institution-builders can lead to a vicious circle where shortcomings in the system trigger mobility and the absence of 'the best and the brightest' means that shortcomings are not addressed [51].

3.2.4. J: Inequity – EU

The differences in working conditions, salary levels, status of health systems and living standards across the EU mean that some Member States have an advantage in terms of attracting and retaining health professionals. The situation can lead to inequity and self-reinforcing disparities. Member States that are unable to attract inflows, must rely on their own means and invest considerably in domestic production, retention and health workforce development. Member States which in addition to not receiving inflows experience outflows end up subsidising part of the health workforce of more advantaged destination countries with no 'compensation'. Mobility patterns reinforce existing disparities, as EU Member States with fewer resources tend to lose health workforce while those with more tend to receive workforce. As noted by Buchan and Aiken, the danger is that migratory flows displace shortages to other countries, which may be less resourced to deal with these [46].

These concerns are present when agencies and employers from wealthier destination countries organise recruitment fairs and promotional events e.g. around university campuses in source countries. While entirely legal, the question from an EU perspective is whether these techniques are fair. Source countries such as Estonia, Greece, Hungary, Italy, or Romania can hardly compete when

certain destinations offer salaries 5–10 times higher than what newly trained health professionals can expect to earn at home [13,16,52].

3.2.5. K: Inequity – destination

At country level, inequity often relate to the differences between the mobile and the non-mobile workforce. In destinations, free mobility can result in discrimination when foreign-trained health professionals (systematically) face less favourable working conditions than domestically trained staff. Studies in Belgium, France, Ireland and Sweden suggest that foreign-trained doctors are more likely to experience stalled career progression and lower pay, work below skill level, and perform less attractive chores and shifts, at times combined with working in isolated, remote regions [9,42,53,54]. A study of eight European destination countries shows that foreign-trained nurses are more likely to perform tasks below their skills level [50].

Another aspect of inequity concerns educational quotas. Countries such as Belgium, Ireland and Switzerland cap the number of university places and health-related training posts to control workforce numbers but show a degree of reliance on foreign inflows [42,45]. This raises equity issues via-a-vis source countries and puts into question whether it is fair that young people are barred from entering medical education in their country. In the UK e.g. the number of applicants for nursing studies far exceeds the level of those accepted and publicly funded nursing student places have been reduced (from 22.000 in 2008–2009 to 17.000 in 2012–2013) while foreign inflows continue [7,55].

3.2.6. L: Inequity – source

In source countries, mobility brings equity concerns for the health professionals staying behind and for patients. While mobility is far from always an easy experience for the migrant [20] it also affects those who remain in what are often already disadvantaged systems [49]. Social equity as well as the diversity and dynamism of the workforce are at stake if certain profiles of health professional e.g. those with family obligations, older health professionals, and those with no foreign language competencies are less able or likely to exercise their right to free mobility. Outflows might also exacerbate (territorial) inequity in terms of regional workforce imbalances and problems with access to care. In Romania, poorer rural regions have low coverage of medical doctors and experience important outflows while peripheral or smaller hospitals have problems in attracting and retaining medical as well as nursing staff, a situation which is made worse by emigration [39,47].

4. Discussion

The analytical framework is intended to capture some of the complexity of health professional mobility. In what follows, main findings in terms of the relevance of the matrix, the effects of health professional mobility, the impact of free mobility on non-EU countries, and the relevance of the WHO Code for the EU will be discussed.

Mobility is complex for observers and policy-makers because its effects are changing, varied, equivocal and unintended. Mobility is not per se 'good' or 'bad' but affects countries in many and contrasting ways. Over the last three decades, a country like Spain has experienced workforce surpluses and outflows of health professionals when the economy was in low gear, and workforce shortages and inflows of health professionals during periods of economic growth [25]. In Ireland, mobility seems to distract policy-makers from tackling underlying health workforce problems [45], while in the Czech Republic mobility provided an impetus for policy change [36]. The matrix is relevant as a tool for making sense of this diversity and complexity of health professional mobility and its effects.

The collected material suggests that there is more evidence on the drawbacks of mobility than on its merits but also that destinations as well as sources experience positive and negative effects. This is important for policy-making: even those countries benefitting most from free mobility cannot ignore its potential risks related to the volatility of flows, competition between destinations and exposure to other countries' health workforce decisions. All EU countries have an incentive to address health professional mobility and to seek ways to collaborate and better coordinate policies at regional and international levels. Free mobility and the mutual recognition of qualifications make EU countries interdependent as the doctors, nurses, midwives, dentists and pharmacists with EU nationalities and diplomas can be considered to form one EU health workforce.

In a context of global health workforce migration, free mobility also impacts on non-EU countries and their health professionals. The ease of mobility within the EU and the fact that Member States cannot restrict EU flows may contribute to making immigration rules for third-country nationals even stricter and to creating a 'hierarchy' of flows. EU health professionals are free to seek the 'best' opportunities whereas non-EU health professionals are left with the posts (gaps) which domestically- and EU-trained doctors and nurses are unwilling to take [see e.g. 9, 53] raising questions of discrimination as well as of reliance on third countries.

The principles embodied by the WHO Code and which the EU subscribes to outside the Union are as relevant inside the EU. In the current context of economic and political uncertainty, their relevance is likely to remain or increase. The review suggests that equity suffers more from mobility than efficiency does, partly because some Member States both loose and receive health workforce while others face a negative mobility balance and because of the self-reinforcing cycle of disparities this might trigger. From an EU perspective, the question is not merely what flows mean for individual countries but what free mobility does to the redistribution of resources Europe-wide. When a qualified health professional moves, one country benefits from what another country has spent on educating and training that person. In this sense, foreign-trained also means 'foreign-funded'. The redistribution can lead to allocative inefficiency when important outflows from a country are not offset by inflows and to equity concerns when poorer Member States subsidise a proportion of wealthier Member States' health workforce. To the extent that economic hardship and austerity measures trigger outflows and aggravate

health problems, the systems and populations with the greatest needs might end up with less.

5. Conclusions

In a context where flows of EU health professionals are increasing and replacing flows from third countries, and where differences between EU countries and health systems are widening, the principles on migration contributing to health system strengthening put forward by the WHO Code appear to be as relevant within the EU as beyond its borders. This article explores the efficiency and equity effects of freedom of movement of health professionals for the EU as a whole, for destination countries and for source countries, and proposes a new analytical tool to facilitate the exercise [14]. The analysis suggests that there is a risk that free health workforce mobility disproportionally benefits wealthier Member States at the expense of less advantaged EU Member States which are not able to attract foreign-trained health workforce or to retain domestically trained professionals. This situation raises efficiency and equity concerns, and has implications for policy making at EU level. Just as the WHO Code calls for more cooperation between countries and for developed countries to "provide technical and financial assistance to developing countries (. . .) aimed at strengthening health systems" (Art 3.3) [1, p. 2], so is there a need for EU level action to mitigate the negative effects and maximise the positive effects of free mobility, especially for the most vulnerable systems in the EU, e.g. by investing in health workforce intelligence and mobility data, coordinating training capacity, and providing structural funds and technical support to disadvantages source systems [14]. As EU countries and their health workforce become increasingly interdependent, a call for intra-EU solidarity and concerted policy action makes sense for reasons of equity as well as of efficiency.

Conflict of interest

None to declare.

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References

[1] WHO. WHO Global Code of Practice on the International Recruitment of Health Personnel. Geneva, World Health Organization (63rd World Health Assembly, WHA63.16); 2010. Available at: http://www.who.int/hrh/migration/code/WHO_global_code_of_practice_EN.pdf [accessed 05.08.15].
[2] European Commission. Green Paper on the European Workforce for Health. Brussels: European Commission; 2008. COM(2008) 725 final.
[3] Council of the European Union. Council conclusions: towards modern, responsive and sustainable health systems. 3059 employment, social policy, health and consumer affairs council meeting, health issues. Luxembourg: Council of the European Union; 2011.
[4] European Commission. Staff working document on an action plan for the EU health workforce. Towards a job-rich recovery. Strasbourg: European Commission; 2012. SWD(2012) 93 final.
[5] Merkur S. Policy responses facilitating mobility or mitigating its negative effects: national, EU and international instruments. In: Buchan J, Wismar M, Glinos IA, Bremner J, editors. Health professional mobility in a changing Europe: new dynamics, mobile individuals and diverse responses. Observatory Studies Series 32. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies); 2014.
[6] Directive. 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1401715075231&uri=CELEX%3A32005L0036 [accessed 05.08.15].
[7] Buchan J. Nurse workforce sustainability: the United Kingdom. Seoul, South Korea: Paper presented at the Nurse Workforce Sustainability Workshop, International Council of Nurses Conference; 2015.
[8] German Medical Association. Unpublished data, foreign-national doctors in Germany 1991–2014.
[9] Delamaire ML, Schweyer FX. Nationally moderate, locally significant: France and health professional mobility from far and near. In: Wismar M, Maier CB, Glinos IA, Dussault G, Figueras J, editors. Health professional mobility and health systems: evidence from 17 European countries. Observatory Studies Series 23. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011.
[10] Dussault G, Buchan J. The economic crisis in the EU: impact on health workforce mobility. In: Buchan J, Wismar M, Glinos IA, Bremner J, editors. Health professional mobility in a changing Europe: new dynamics, mobile individuals and diverse responses. Observatory Studies Series 32. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies); 2014.
[11] Thomson S, Figueras J, Evetovits T, Jowett M, Mladovsky P, Maresso A, et al. Economic crisis, health systems and health in Europe: impact and implications for policy. Policy Summary 12. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies); 2014.
[12] European Commission. Communication from the Commission, follow-up to the high level reflection process on patient mobility and healthcare developments in the European Union. Brussels: European Commission; 2004. COM(2004) 301 final.
[13] Wismar M, Maier CB, Glinos IA, Dussault G, Figueras J, editors. Health professional mobility and health systems: evidence from 17 European countries. Observatory Studies Series 23. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011.
[14] Glinos IA, Wismar M, Buchan J. How can countries address the efficiency and equity implications of health professional mobility in Europe? Adapting policies in the context of the WHO Code and EU freedom of movement. Policy Brief. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies); 2015, forthcoming.
[15] Ognyanova D, Maier CB, Wismar M, Girasek E, Busse R. Mobility of health professionals before and after the 2004 and 2007 EU enlargements: evidence from the PROMeTHEUS project. In: Buchan J, Wismar M, Glinos IA, Bremner J, editors. Health professional mobility in a changing Europe: new dynamics, mobile individuals and diverse responses. Observatory Studies Series 32. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies); 2014.
[16] OECD. Recent trends in the international migration of doctors and nurses and the impact of health and immigration policies. Working Party on Migration. Note by the Secretariat. Paris: OECD; 2014. DELSA/ELSA/WP2(2004)11.

[17] Buchan J, Parkin T, Sochalski J. International nurse mobility. Trends and policy implications. Geneva: World Health Organization; 2003. Available at: http://apps.who.int/iris/bitstream/10665/68061/1/WHO_EIP_OSD_2003.3.pdf?ua=1 [accessed 05.08.15].
[18] Buchan J. Health worker migration in Europe: assessing the policy options. Eurohealth 2007;13:6–8.
[19] Buchan J, Glinos IA, Wismar M. Introduction to health professional mobility in a changing Europe. In: Buchan J, Wismar M, Glinos IA, Bremner J, editors. Health professional mobility in a changing Europe: new dynamics, mobile individuals and diverse responses. Observatory Studies Series 32. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies); 2014.
[20] Glinos IA, Buchan J, Wismar M. Health professional mobility in a changing Europe: lessons and findings. In: Buchan J, Wismar M, Glinos IA, Bremner J, editors. Health professional mobility in a changing Europe: new dynamics, mobile individuals and diverse responses. Observatory Studies Series 32. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies); 2014.
[21] Glinos IA, Buchan J. Health professionals crossing the EU's internal and external borders: a typology of health professional mobility and migration. In: Buchan J, Wismar M, Glinos IA, Bremner J, editors. Health professional mobility in a changing Europe: new dynamics, mobile individuals and diverse responses. Observatory Studies Series 32. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies); 2014.
[22] Regulation (EU) No 282/2014 of the European Parliament and of the Council of 11 March 2014 on the establishment of a third Programme for the Union's action in the field of health (2014-2020) and repealing Decision No 1350/2007/EC (Text with EEA relevance), Official Journal L86/1, 21.03.2014.
[23] Thomson S, Foubister T, Figueras J, Kutzin J, Permanand G, Bryndová L. Addressing financial sustainability in health systems. World Health Organization, on behalf of the European Observatory on Health Systems and Policies; 2009.
[24] Bertinato L, Glinos IA, Boscolo E, Ciato L. Oversupplying doctors but seeking carers: Italy's demographic challenges and health professional mobility. In: Wismar M, Maier CB, Glinos IA, Dussault G, Figueras J, editors. Health professional mobility and health systems: evidence from 17 European countries. Observatory Studies Series 23. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011.
[25] Lopez-Valcarcel BG, Perez PB, Quintana CDD. Opportunities in an expanding health service: Spain between Latin America and Europe. In: Wismar M, Maier CB, Glinos IA, Dussault G, Figueras J, editors. Health professional mobility and health systems: evidence from 17 European countries. Observatory Studies Series 23. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011.
[26] Galan A, Olsavszky V, Vladescu C. Emergent challenge of health professional emigration: Romania's accession to the EU. In: Wismar M, Maier CB, Glinos IA, Dussault G, Figueras J, editors. Health professional mobility and health systems: evidence from 17 European countries. Observatory Studies Series 23. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011.
[27] Kentikelenis A, Karanikolos M, Papanicolas I, Basu S, McKee M, Stuckler D. Health effects of financial crisis: omens of a Greek tragedy. The Lancet 2011;378:1457–8.
[28] Howie M. Spanish and Portuguese nurses fill the gaps in the NHS. The Guardian 20 Dec 2011.
[29] Ribeiro J, Conceicão C, Pereira J, Leone C, Mendonca P, Temido M, et al. Health professionals moving to... and from Portugal. Health Policy 2014;114(2–3):97–108.
[30] European Federation of Nurses Associations. Caring in crisis: the impact of the financial crisis on nurses and nursing. A comparative overview of 34 European countries. Brussels: European Federation of Nurses Associations; 2012. Available at: http://www.efnweb.be/wp-content/uploads/2012/05/EFN-Report-on-the-Impact-of-the-Financial-Crisis-on-Nurses-and-Nursing-January-20122.pdf [accessed 05.08.15].
[31] Ognyanova D, Busse R. A destination and a source: Germany manages regional health workforce disparities with foreign medical doctors. In: Wismar M, Maier CB, Glinos IA, Dussault G, Figueras J, editors. Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series 23. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011.
[32] Government HM. Review of the Balance of Competences between the United Kingdom and the European Union: Health; 2013. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/224715/2901083_EU-Health_acc.pdf [accessed 05.08.15].
[33] Young R. A major destination country: The United Kingdom and its changing recruitment policies. In: Wismar M, Maier CB, Glinos IA, Dussault G, Figueras J, editors. Health professional mobility and health systems: evidence from 17 European countries. Observatory Studies Series 23. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011.
[34] Ognyanova D, Young R, Maier CB, Busse R. Who do health professionals leave Germany and what attracts foreigners? A qualitative study. In: Buchan J, Wismar M, Glinos IA, Bremner J, editors. Health professional mobility in a changing Europe: new dynamics, mobile individuals and diverse responses. Observatory Studies Series 32. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies); 2014.
[35] Kuusio H, Koivusalo M, Elovainio M, Heponiemi T, Aalto A-M, Keskimäki I. Changing context and priorities in recruitment and employment: Finland balances inflows and outflows of health professionals. In: Wismar M, Maier CB, Glinos IA, Dussault G, Figueras J, editors. Health professional mobility and health systems: evidence from 17 European countries. Observatory Studies Series 23. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011.
[36] Alexa J, Rečka L, Votápková J, van Ginneken E, Spranger A, Wittenbecher F. Czech Republic: health system review. Health Systems in Transition 2015;17(1):1–165.
[37] Saar P, Habicht J. Migration and attrition: Estonia's health sector and cross-border mobility to its northern neighbour. In: Wismar M, Maier CB, Glinos IA, Dussault G, Figueras J, editors. Health professional mobility and health systems: evidence from 17 European countries. Observatory Studies Series 23. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011.
[38] Offermanns G, Malle EM, Jusic M. Mobility, language and neighbours: Austria as source and destination country. In: Wismar M, Maier CB, Glinos IA, Dussault G, Figueras J, editors. Health professional mobility and health systems: evidence from 17 European countries. Observatory Studies Series 23. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011.
[39] Galan A. Personal communication, 26 March 2014.
[40] Kautsch M, Czabanowska K. When the grass gets greener at home: Poland's changing incentives for health professional mobility. In: Wismar M, Maier CB, Glinos IA, Dussault G, Figueras J, editors. Health professional mobility and health systems: evidence from 17 European countries. Observatory Studies Series 23. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011.
[41] Cullen P. Varadkar to announce campaign to bring Irish nurses home. The Irish Times 08 May 2015. Available at: http://www.irishtimes.com/news/health/varadkar-to-announce-campaign-to-bring-irish-nurses-home-1.2204042 [accessed 05.08.15].
[42] Safuta A, Baeten R. Of permeable borders: Belgium as both source and host country. In: Wismar M, Maier CB, Glinos IA, Dussault G, Figueras J, editors. Health professional mobility and health systems: evidence from 17 European countries. Observatory Studies Series 23. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011.
[43] Young R, Humphrey C, Rafferty AM. Motivations and experiences of health professionals who migrate to the United Kingdom from other EU countries. In: Buchan J, Wismar M, Glinos IA, Bremner J, editors. Health professional mobility in a changing Europe: new dynamics, mobile individuals and diverse responses. Observatory Studies Series 32. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies); 2014.
[44] Braeseke G. Training nurses from Vietnam: lessons from the pilot project in Germany. Rome: Presentation at the Joint Action on Health Workforce Planning and Forecasting Conference; 05 December 2014.
[45] Humphries N, Tyrrell E, McAleese S, Bidwell P, Thomas S, Normand C, et al. A cycle of brain gain, waste and drain – a qualitative study

of non-EU migrant doctors in Ireland. Human Resources for Health 2013;11:63.
[46] Buchan J, Aiken L. Solving nursing shortages: a common priority. Journal of Clinical Nursing 2008;17:3262–8.
[47] Galan A, Olsavszky V, Vladescu C. Calarasi and Silistra hospitals sharing doctors (Romania-Bulgaria). In: Glinos IA, Wismar M, editors. Hospitals and borders: 7 case-studies on cross-border collaboration and health system interactions. Observatory Studies Series 31. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies); 2013.
[48] Maier CB, Glinos IA, Wismar M, Bremner J, Dussault G, Figueras J. Cross-country analysis of health professional mobility in Europe: the results. In: Wismar M, Maier CB, Glinos IA, Dussault G, Figueras J, editors. Health professional mobility and health systems: evidence from 17 European countries. Observatory Studies Series 23. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011.
[49] Kingma M. Nurses on the move: a global overview. Health Services Research 2007;42(3 Pt 2):1281–98.
[50] Bruyneel L, Li B, Aiken L, Lesaffre E, Van den Heede K, Sermeus W. A multi-country perspective on nurses' tasks below their skill level: reports from domestically trained nurses and foreign-trained nurses from developing countries. In: Buchan J, Wismar M, Glinos IA, Bremner J, editors. Health professional mobility in a changing Europe: new dynamics, mobile individuals and diverse responses. Observatory Studies Series 32. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies); 2014.
[51] Kapur D, McHale J. Give us your best and brightest: the global hunt for talent and its impact on the developing world. Washington, DC: Center for Global Development; 2005.
[52] Fujisawa R, Lafortune G. The remuneration of general practitioners and specialists in 14 OECD countries: what are the factors influencing variations across countries? OECD Health Working Papers No. 41. Paris: OECD Publishing; 2008.
[53] Humphries N, Bidwell P, Tyrrell E, Brugha R, Thomas S, Normand C. "I am kind of in stalemate". The experiences of non-EU migrant doctors in Ireland. In: Buchan J, Wismar M, Glinos IA, Bremner J, editors. Health professional mobility in a changing Europe: new dynamics, mobile individuals and diverse responses. Observatory Studies Series 32. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies); 2014.
[54] Wolanik Bostrom K, Ohlander M. A troubled elite? Stories about migration and establishing professionalism as a Polish doctor in Sweden, Working Papers No. 110. Bielefeld: COMCAD, Center on Migration, Citizenship and Development; 2012.
[55] Plimmer G. UK falls short of 24,000 nurses due to cuts and immigration rules. Financial Times 07 June 2015.